



Name: \_\_\_\_\_  
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Geometry, Period \_\_\_\_\_  
Due Date: 2/16/15

HW101 CRS Review

**Geometry  
Homework**

Form A

**PARALLEL PRACTICE**

1) What is the slope of a line parallel to  $x - 5y = -20$

2) Write an equation for a line parallel to  $6x - 5y = 15$  and travels through the point  $(5, -2)$

$$\begin{array}{r} -5y = -6x + 15 \\ \hline -5 \quad -5 \\ y = \frac{6}{5}x - 3 \end{array}$$

3) Determine whether the two lines are parallel

$$\begin{array}{l} y = 3x + 4 \\ 12x = 4y - 24 \rightarrow \frac{4y}{4} = \frac{12x + 24}{4} \\ y = 3x + 6 \end{array}$$

4) Find the value of  $k$  so that the lines through the given points are parallel.

a) Line 1:  $(-4, -2)$  and  $(0, 0)$   
Line 2:  $(2, 7)$  and  $(k, 5)$

a) Line 1:  $(-1, 9)$  and  $(-6, -6)$   
Line 2:  $(7, k)$  and  $(0, -2)$

5) **Challenge:** Find the slope and y-intercept of the graph of the equation  $Ax + By = C$  where  $B \neq 0$ . Use your results to find the slope and y-intercept of the graph of  $3x + 2y = 18$ .

# PERPENDICULAR PRACTICE

1) Write the negative reciprocal for each of the following

- a.  $\frac{-4}{1} \rightarrow$  flip #'s and change sign  $\frac{1}{4}$
- b.  $\frac{7}{1}$  \_\_\_\_\_
- c.  $\frac{3}{4}$  \_\_\_\_\_
- d.  $-\frac{5}{3}$  \_\_\_\_\_

2) Write an equation of a line perpendicular to  $32 = -4x + 8y$

$$8y = 4x + 32$$

$$y = \frac{1}{2}x + 4$$

3) Write an equation in slope – intercept form of a line passing through the point

$(-2, -4)$  and perpendicular to  $y = -\frac{2}{7}x + 2$ .

4) Determine which of the following equations are parallel or perpendicular to one another. Clearly label your answers and provide solid reasoning for your choice.

Line A:  $3y - 2x = 12$

Line B:  $y = -6x + 44$

Line C:  $3y = 2x - 13$

Line D:  $2y = -3x + 37$

5) Write an equation in slope-intercept form that passes through point  $(-8, 2)$  and is perpendicular to the slope of  $-1/5$

6) Write an equation in slope – intercept form of the line that passes through  $(-1, 2)$  and is perpendicular to the line  $y = -3x + 4$ ?